

IN THE SPECIFICATION

Please replace the abstract with the following:

A design for a system of heterogeneous programmable processing elements is compiled and configuration packets are created. The design is divided into functions, and the functions are compiled or translated to formats compatible with the processing elements. A packet size is set for communications between the programmable elements. The design is profiled, and a power supply voltage of at least one of the programmable processing elements is modified in response to the profiling.